Winter Safety Briefing 2004

Be Prepared for Winter Driving

Winter 2004-2005

Weather

Traveler's Tools

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You must understand how cold weather effects your vehicle before, during, and

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Before beginning your journey during wintry weather conditions:

- Ask yourself if your journey is absolutely essential.
- Check local and national weather forecasts.
- Listen to local and national radio for travel information.
- Tell someone what time you expect to arrive.
- Think about taking warm clothes, boots, and a flashlight – it could be a long walk to a phone.
- Clear your windows and mirrors of snow and ice before you set off.

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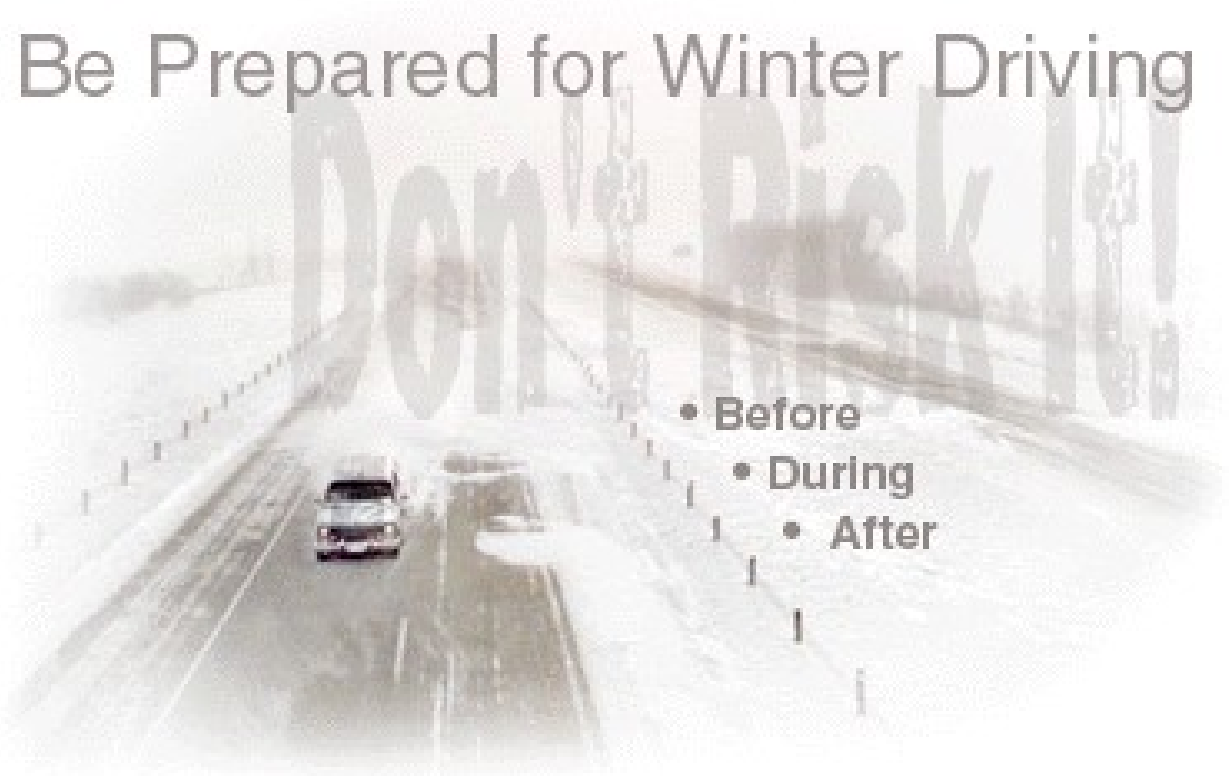

Weather

CLOTHING

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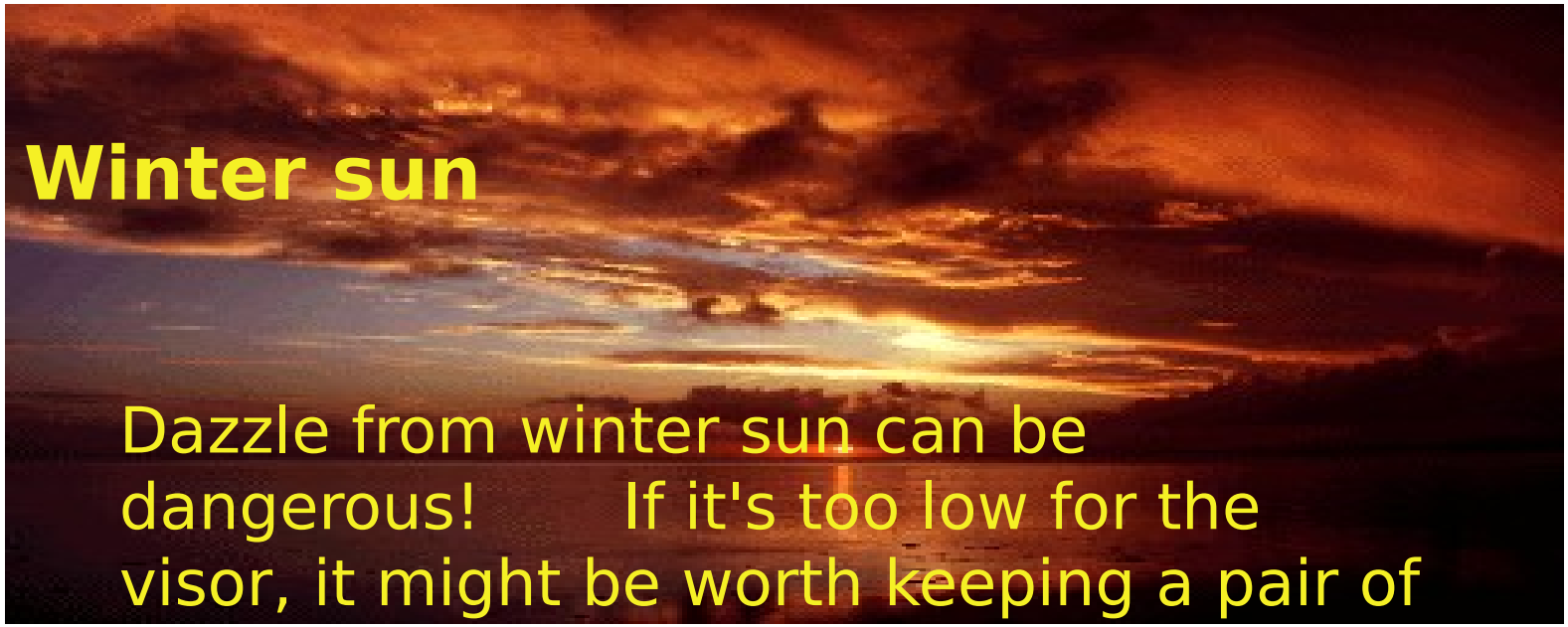
Winter sun
Dazzle from winter sun can be dangerous! If it's too low for the visor, it might be worth keeping a pair of sunglasses handy

WEAR QUALITY SUNGLASSES

Good quality sunglasses help highlight changes in the terrain and road surface, even in low visibility conditions

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Dress Properly

- ✓ Wear several layers of thick, loose-fitting clothing.
- ✓ Wear a hat, scarf, and turtleneck sweater.
- ✓ The head and neck lose heat faster than any other part of the body.
- ✓ Dress for the cold.
- ✓ Don't forget a hat and

Prepare the Driver

- **Wear warm clothes that do not restrict movement.**

- **In bad weather, let someone know your route and intended arrival time, so you can be searched for if you don't turn up after a reasonable delay.**

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- **Wear several layers of loose fitting, lightweight clothing.**

- **Wear mittens instead of gloves. Wear a hat.**

- **Remember that entrapped, insulating air warmed by body heat is the best protection from the cold.**

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Examples of wind chill:

With the temperature of 5°F and winds blowing at 35 mph, the wind chill index would be -21°F, which could cause frostbite within 45 minutes. (Increased Danger)

With a temperature of -20°F and winds blowing at 35 mph, the wind chill index would be -55°F and could cause frostbite in less than 5 minutes. (Great Danger)

Wind Chill Temperature Table

Wind Speed (mph) ↓	Air Temperature (°F)																	
	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
0	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95

GREEN LITTLE DANGER (frostbite occurs in >2 hours in dry, exposed skin)

YELLOW INCREASED DANGER (frostbite could occur in 45 minutes or less in dry exposed skin)

RED GREAT DANGER (frostbite could occur in 5 minutes or less in dry, exposed skin)

Read right and down from the calm-air line. For example, a temperature of 0ºF combined with a 20 mph wind, has an equivalent cooling effect of -22ºF.

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Vehicle Preparation

PREPARE FOR THE TRIP

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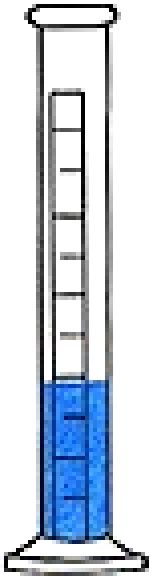
Vehicle Preparation

Routine precautions help you avoid starting problems:



- **Get an engine tune-up in the fall**
- **Be sure all lights are in good working order**
- **Have the brakes adjusted**
- **Remember to switch to winter-weight oil if you aren't already using all-season oil**
- **Battery and voltage regulator should be checked**

✓ **Dirty oil can give you trouble in the winter, so change the oil and filter. Check the other filters, including the fuel, air and transmission filters.**

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Vehicle Preparation

Make sure battery connections are good.

- **If the battery terminal posts seem to be building up a layer of corrosion, clean them with a paste of baking soda and water. Let it foam, and then rinse with water. Apply a thin film of petroleum jelly to the terminal posts to prevent corrosion, and reconnect.**

  Wear eye protection!

- **Be sure all fluids are at proper**

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Vehicle Preparation

- **Antifreeze should not only be strong enough to prevent freezing, but fresh enough to prevent rust.**

- **Make sure wiper blades are cleaning properly. Consider changing to winter wiper blades, which are made for driving in snow. They are covered with a rubber boot to keep moisture away from working parts of the blade.**

✓ **Clean frost and snow off the windows, mirrors, lights and reflectors.**

Carbon monoxide

- **Carbon monoxide, present in exhaust fumes, is almost impossible to detect and CAN BE FATAL when breathed in a confined area. Because of the danger of carbon monoxide poisoning, don't let your car warm up in the garage for a long period of time, especially if you have an attached garage. The fumes easily can seep into the house and overcome those inside, even with an open garage door.**

http://www.phymac.med.wayne.edu/FacultyProfile/penney/COHQ/co1

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Vehicle Preparation

- **The exhaust system: Have the exhaust system checked fully for leaks that could send carbon monoxide into your vehicle.**

- **Heating and cooling system: Check your radiator and hoses for cracks and leaks. Make sure the radiator cap, water pump, and thermostat work properly. Test the strength of the anti-freeze, and test the functioning of the heater and defroster**

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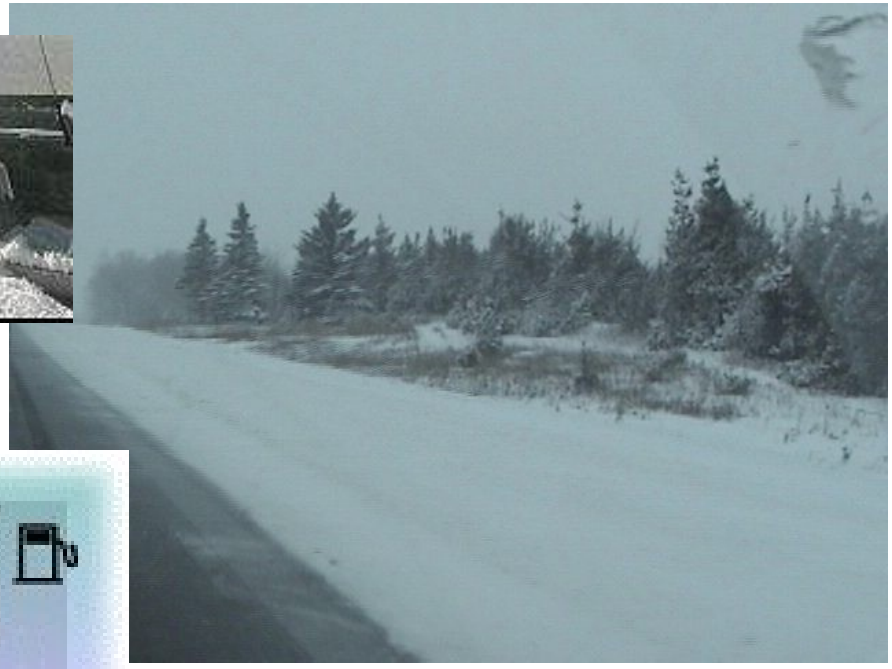
Vehicle Preparation

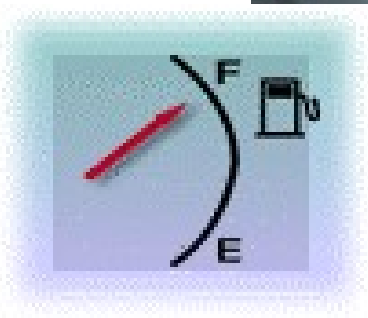
- **Windshield: Make sure wipers are in good condition and fill up on winter washer fluid. Keep extra in your trunk. Ensure your windshield can give you clear vision of the road and traffic around you.**

- **One way to find a good repair facility to tune-up your vehicle is to look for an ASI Approved Auto Repair Services sign at garages or ask a friend.**

Vehicle Preparation

DON’T FORGET TO FILL UP WITH FUEL





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Here's what you'll want to have on hand, especially in an emergency:

- ✓ **Snow shovel.**
- ✓ **Scraper with a brush on one end.**
- ✓ **Tow chain or strap.**
- ✓ **Warning device (flares or reflective triangles).**
- ✓ **Brightly colored cloth to signal for help.**

- ✓ **Don't forget the gloves. Your fingers will stick to cold me**

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Here's what you'll want to have on hand, especially in an emergency (Con't):

- ✓ **Flashlight (with extra batteries)**
- ✓ **Abrasive material (cat litter, sand, salt, or traction mats).**
- ✓ **Compass, Warning light or road flares, Booster cables**
- ✓ **First Aid Kit**

Keep the headlights on while driving. Don't use your bright lights because the snow can reflect light back into your eyes.